The opinion in support of the decision being entered today was **not** written
for publication and is **not** binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AMANULLAH KHAN and WARREN COON

Appeal No. 2002-1810
Application No. 09/336,503

ON BRIEF

Before ABRAMS, HAIRSTON, and NASE, Administrative Patent Judges.

ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-22. Claim 23 had been withdrawn as being directed to a non-elected invention. Subsequently, in the Reply Brief, the appellants withdrew the appeal of claims 1, 3, 4, 6, 7, 8 and 9, leaving before us on appeal claims 2, 5 and 10-22.

We REVERSE.

BACKGROUND

The appellants' invention relates to a disk drive suspension for supporting a slider. An understanding of the invention can be derived from a reading of exemplary claim 1, which has been reproduced in the appendix to the Brief.

The sole prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Goss	6,014,289	Jan. 11, 2000 (filed Mar. 22, 1994)

Claims 5 and 10-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Goss.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Goss.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the Answer (Paper No. 20) and the final rejection (Paper No. 16) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 18) and Reply Brief (Paper No. 21) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art reference, and to the

respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The Rejection Under Section 102

Claims 5 and 10-22 stand rejected as being anticipated by Goss. Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. See In re Paulsen, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994) and In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). We find this not to be the case with regard to any of the independent claims, and we therefore will not sustain this rejection. Our reasoning follows.

Claim 5 depends from independent claim 1 through claim 4 (the appeal has been withdrawn as to claims 1 and 4). Claim 1 recites, inter alia, a slider supported upon a load beam having a base portion, a spring portion and a rigid portion, with the rigid portion having a first side proximate the slider and a second side remote from the slider, as well as a conductor defining a locus of electrical contact along the load beam and being connected to the microchip. Claim 4 adds to claim 1 the requirement that the conductor comprise a flexible circuit, and claim 5 further specifies that the flexible conductor is located on the rigid portion first side of the load beam and defines the locus of electrical contact opposite the microchip. The appellants argue that Goss does not teach the location of the conductor that is specified in claim 5 (Reply brief, page 5).

Goss is directed to a suspension for supporting a slider carrying a microchip in operating proximity to a disk. Goss discloses a two-piece load beam comprising a base 12 that is made more rigid over a portion of its length (region 30) by a shell 31 attached thereto, so as to create a cavity therebetween (Figure 4). Base 12 is provided with an opening 51 that is larger than microchip 20 and through which microchip 20 is inserted into the cavity for installation on the load beam (column 8, lines 39-43). An opening 50 smaller than microchip 20 is provided on shell 31, and the microchip is attached to shell 31 at its edges, which overlap the periphery of opening 50 (column 8, lines 43 and 44). The relationship between microchip 20 and the load beam is described in the following manner:

> Although in a preferred low profile monocoque HSA [head suspension assembly] the VTC IC may slightly protrude, the space inside the monocoque region 30 is large enough to totally encase a custom IC and all of the connections to its pins (column 8, lines 44-47).

We find that Goss does not disclose or teach the requirement recited in claim 5 that the conductor comprising the locus of electrical contact for the microchip is on the same side of the load beam as the slider. In light of the appellants' specification, we interpret the first and second "sides" of the load beam to be the outer surfaces thereof (see description of Figures 1 and 2 on page 7). As stated above in the quoted sentence, the electrical connections to the pins of the microchip in the Goss arrangement are located within the cavity created between the two components of the composite load beam, and thus they are not on the first or the second "side" of the load

beam, that is, upon the outer surface of the load beam. Since all of the subject matter recited in claim 5 is not disclosed or taught by Goss, the claim is not anticipated, and the rejection is not sustained.

Independent claim 10 recites a load beam having a slider mounted on a first side and comprising a microchip-receiving opening "therethrough," with the opening including "a wall immediately laterally surrounding" the microchip and the microchip being "mounted in said through-opening from said second side[1] of said rigid portion." The examiner has found that the Goss "load beam" is of two-piece construction comprising a base portion 12 and an attached spaced shell portion 31, a conclusion with which we agree.[2] This being the case, however, the Goss load beam does not comprise a microchip-receiving opening "therethrough," that is, through its entirety, for although opening 51 in the base portion is larger than the microchip and thus receives the microchip and surrounds it laterally, aligned opening 50 in the shell is smaller than the microchip, and therefore the microchip is not "mounted in" this opening, with the walls of the opening surrounding it laterally. Thus, this structure of claim 10 is lacking in Goss. In addition, in the Goss arrangement the microchip is mounted through opening

[1]There is no antecedent basis for "said second side," and we have interpreted this to mean "a second side." This error should be corrected.

[2]Shell 31 must be considered to be part of the load beam for it is necessary in order to provide the "rigid portion" required by the appellants' claims (see Goss column 6, lines 29-36 and line 58 et seq.).

51, which is in the first (slider) side of the load beam, while claim 10 requires that it be mounted from the second (opposite) side of the load beam.

We therefore conclude that Goss fails to anticipate the subject matter recited in independent claim 10, and we will not sustain the rejection of claim 10 or, it follows, of claims 11-21, which depend from claim 10.

Independent claim 22 requires that the load beam have first and second sides, that there be an opening in the rigid portion of the load beam for receiving the microchip, and that the microchip "extend[ing] from said rigid portion second side through to said rigid portion first side." As we explained above, Goss mounts the microchip in the cavity between the two portions of the load beam. Although it appears in Figure 5 to extend through the opening in the base portion, the microchip cannot extend through the opening in the shell portion, and therefore it does not extend "through" the load beam from the first side to the second side. On this basis, Goss fails to anticipate the subject matter of claim 22. Moreover, as was the case in claim 5, claim 22 requires that the conductor be fixed to the first (slider) side of the load beam, which is not the case in Goss. The rejection of claim 22 therefore cannot be sustained.

The Rejection Under Section 103

Claim 2, which depends from claim 1, stands rejected as being unpatentable over Goss. The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller,

642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellants' disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

It is the examiner's view that Goss discloses all of the subject matter recited in claim 2 except for the requirement that the load beam rigid portion is solid. However, the examiner has taken the position that it would have been obvious to one of ordinary skill in the art to modify the Goss two-piece load beam structure by making the rigid portion solid "to reduce transmission losses from the microchip" (Paper No. 16, page 3). We do not agree.

Goss states that his invention provides a flat and extremely rigid monocoque region which is "low in mass, yet extremely strong and able to withstand increased momentum and torque forces," and which "includes a well-ventilated cavity specially suited to securely contain and protect the IC and its terminals" (column 3, line 65 et

seq.). Replacement of the two-piece rigid structure disclosed by Goss with a solid rigid structure would necessitate a wholesale reconstruction of the Goss load beam and would eliminate the stated advantages provided thereby. From our perspective, the loss of the advantages provided by the Goss structure would be a disincentive to one of ordinary skill in the art to make the modification proposed by the examiner, and thus it is our view that motivation to do so would not be present.

It therefore is our conclusion that Goss fails to establish a prima facie case of obviousness with regard to the subject matter recited in claim 2, and we will not sustain the rejection.

CONCLUSION

Neither rejection is sustained.

The decision of the examiner is reversed.

NEAL E. ABRAMS Administrative Patent Judge	)))))) BOARD OF PATENT) APPEALS AND) INTERFERENCES)))))
KENNETH W. HAIRSTON Administrative Patent Judge	
JEFFREY V. NASE Administrative Patent Judge	

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